

## CLAIMS

I claim:

1. A composite scaffolding plank comprising:
  - a plurality of wooden boards each having a lengthwise direction, two opposing sides being flat and extending parallel to said lengthwise direction, each of said sides having a height, said height being the smallest dimension of said wooden boards;
  - said plurality of wooden boards positioned in side to side parallel abutment;
  - at least three spaced helical pins extending transversely through said plurality of wooden boards, normal to said wooden board sides and normal to said lengthwise direction; and
  - said plurality of wooden boards being held together in compression by said helical pins.
2. A composite scaffolding plank as in claim 1 wherein said plurality of wooden boards comprise three of said wooden boards.
3. A composite scaffolding plank as in claim 1 wherein:
  - each of said plurality of wooden boards having a length and including a top and two opposing ends;
  - said wooden board tops being co-planar;
  - said wooden board lengths being substantially equal; and
  - said wooden board ends forming a substantially continuous surface.

4. A composite scaffolding plank as in claim 1 further comprising:  
said plurality of wooden boards having a transverse bore extending substantially  
therethrough for each of said helical pins;  
so that said transverse bore facilitates placement of said corresponding helical pin in said  
plurality of wooden boards.

5. A composite scaffolding plank as in claim 1, wherein each of said at least three  
spaced helical pins has a square cross section.

6. A composite scaffolding plank as in claim 2, wherein said three wooden boards  
comprise a middle board and two outer boards;  
said three wooden boards each having a wood grain direction; wherein  
said middle board is oriented such that the direction of said wood grain of said  
middle board alternates against said wood grain direction of said two outer boards.

7. A composite scaffolding plank comprising:  
a plurality of wooden boards;  
each said wooden board having a rectangular prism shape;  
each said wooden board having a length, a first end surface, a second end surface,  
a top surface, a bottom surface, and two opposing side surfaces;  
each said side surface being narrower than said top surface, said top surface  
having a width equal to a width of said bottom surface;

1        said plurality of wooden boards positioned with at least one of said side surfaces  
2 of each said wooden board in parallel abutment to at least one side surface of another said  
3 wooden board;

4        said top surfaces of said wooden boards being co-planar;  
5        at least three spaced helical pins extending transversely through said plurality of  
6 wooden boards, normal to said opposing side surfaces; and  
7        said plurality of wooden boards being held together by said helical pins.

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9    8.    A composite scaffolding plank as in claim 7, further comprising:  
10        all said first end surfaces of said plurality of wooden boards being co-planar; and  
11        all said second end surfaces of said plurality of wooden boards being co-planar.

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13    9.    A composite scaffolding plank as in claim 8, wherein said plank has a nominal  
14 height of 2" and a combined nominal width of 10".

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16    10.   A composite scaffolding plank as in claim 9 wherein said plurality of wooden  
17 boards comprise a first wooden board, a second wooden board and a third wooden board.

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19    11.   A composite scaffolding plank as in claim 10, wherein:  
20        said top surface and said bottom surface of said first wooden board have a  
21 nominal width of 4";  
22        said top surface and said bottom surface of said second wooden board have a  
23 nominal width of 3";

1           said top surface and said bottom surface of said third wooden board have a  
2   nominal width of 4";  
3           said opposing side surfaces of said first wooden board have a nominal height of  
4   2";  
5           said opposing side surfaces of said second wooden board have a nominal height  
6   of 2"; and  
7           said opposing side surfaces of said third wooden board have a nominal height of  
8   2".

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10   12.    A composite scaffolding plank as in claim 7, wherein all said lengths of said  
11   plurality of wooden boards are approximately equal.

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13   13.    A composite scaffolding plank as in claim 7, wherein said plurality of wooden  
14   boards comprises a middle board and two outer boards;  
15           said plurality of wooden boards each having a wood grain direction; wherein  
16           said middle board is oriented such that the direction of said wood grain of said  
17   middle board alternates against said wood grain direction of said two outer boards.

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19   14.    A composite scaffolding plank as in claim 7, wherein said wooden boards having  
20   a modulus of elasticity in the range of  $1.6 \times 10^6$  to  $1.8 \times 10^6$ .

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22   15.    A composite scaffolding plank as in claim 7, wherein said wooden boards having  
23   a fiber bending value of 2200 psi.

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- 2 16. A composite scaffolding plank comprising a plurality of wooden boards held  
3 together in compression by a plurality of helical pins.